

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2001-NM-231-AD; Amendment 39-13154; AD 2003-10-09]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 747-400 and -400F Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 747-400 and -400F series airplanes, that requires initial and, for certain airplanes, repetitive inspections of the rivets in the forward, top, and side panels of the nose wheel well (NWW) for discrepancies; and follow-on inspections and corrective action, if necessary. This amendment also provides eventual terminating action for the repetitive inspections. The actions specified by this AD are intended to find and fix discrepancies of the rivets in the NWW panels, which could result in failure of the rivets and consequent reduced structural integrity of the panels and rapid depressurization of the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective July 1, 2003.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of July 1, 2003.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Rick Kawaguchi, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6434; fax (425) 917-6535.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Boeing Model 747-400 and -400F series airplanes was published in the Federal Register on January 8, 2003 (68 FR 1017). That action proposed to require initial and, for certain airplanes, repetitive

inspections of the rivets in the forward, top, and side panels of the nose wheel well (NWW) for discrepancies; and follow-on inspections and corrective action, if necessary. That action also proposed to provide eventual terminating action for the repetitive inspections.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received. One commenter states that it does not own or operate the equipment affected by the proposed AD, and has no comments.

Request To Give Credit for Terminating Action

One commenter asks that the compliance time specified in paragraph (c) of the proposed AD be changed from "Within 2 years after the effective date of this AD" to "No later than 2 years after the date of this AD." The commenter states that this wording would give credit to operators that have previously performed the identical terminating action at a time prior to the eventual release of the final rule.

The FAA agrees that any operator that has previously performed the terminating action required by paragraph (c) of the final rule does not have to do that action again. We already give credit for actions accomplished before the effective date of an AD by means of the phrase "Compliance: Required as indicated, unless accomplished previously," which appears in every AD. Therefore, no change to the final rule is necessary in this regard.

Explanation of Editorial Changes

We have changed the service bulletin citation throughout this final rule to exclude the Evaluation Form. The form is intended to be completed by operators and submitted to the manufacturer to provide input on the quality of the service bulletin; however, this AD does not include such a requirement.

We also have added a reference to the service bulletin in paragraphs (a)(1) and (c)(1) of this final rule for clarification.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes previously described. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 43 airplanes of the affected design in the worldwide fleet. The FAA estimates that 6 airplanes of U.S. registry will be affected by this AD.

It will take approximately 4 work hours per airplane to do the detailed inspection, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the detailed inspection required by this AD on U.S. operators is estimated to be \$1,440, or \$240 per airplane, per inspection cycle.

It will take approximately 10 work hours per airplane to do the indirect conductivity eddy current inspection, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the indirect conductivity eddy current inspection required by this AD on U.S. operators is estimated to be \$3,600, or \$600 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2003-10-09 Boeing: Amendment 39-13154. Docket 2001-NM-231-AD.

Applicability: Model 747-400 and -400F series airplanes, line numbers 1141 through 1183 inclusive; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To find and fix discrepancies of the rivets in the nose wheel well (NWW) panels, which could result in failure of the rivets and consequent reduced structural integrity of the panels and rapid depressurization of the airplane, do the following:

Repetitive/Follow-on Inspections/Corrective Action

(a) Within 6 months after the effective date of this AD: Do a detailed inspection of the forward, top, and side panels of the NWW for missing rivet heads, between fuselage stations 260 and 340 of the canted pressure bulkhead, per Figure 2 of the Work Instructions of Boeing Alert Service Bulletin 747-53A2472, including Appendix A, excluding Evaluation Form, dated June 7, 2001.

(1) If any missing rivet head is found, before further flight, replace with a permanent or time limited repair fastener per the Work Instructions of the service bulletin, and do the actions specified in paragraph (b) of this AD.

(2) If no missing rivet head is found, before further flight, do the actions required by paragraph (c) of this AD, or repeat the detailed inspection at least every 6 months until paragraph (c) of this AD is done.

Note 2: For the purposes of this AD, a detailed inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

(b) If any missing rivet head is found during any inspection required by paragraph (a) of this AD: Within 30 days after doing the detailed inspection, do an indirect conductivity eddy current inspection for discrepant rivets (incorrectly heat-treated) per Figure 2 of the Work Instructions of Boeing Alert Service Bulletin 747-53A2472, including Appendix A, excluding Evaluation Form, dated June 7, 2001. If any discrepant rivet is found, before further flight, replace with a permanent or time limited repair fastener as required by paragraph (b)(1) or (b)(2) of this AD, as applicable. If no discrepant rivet is found, no further action is required by this AD. Replace any time limited repair fasteners with permanent fasteners within 24 months after installation.

(1) If up to three adjacent discrepant rivets are found: Before further flight, remove the affected rivets and replace with permanent or time limited repair fasteners per the Work Instructions of the service bulletin.

(2) If four or more adjacent discrepant rivets are found: Before further flight, remove the affected rivets and do a high frequency eddy current inspection of the web for cracking around the intact fasteners at each end of the line of missing rivets per the Work Instructions of the service bulletin.

(i) If no web cracking is found, before further flight, install permanent or time limited repair fasteners per the Work Instructions of the service bulletin.

(ii) If any web cracking is found, before further flight, repair per a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA; or per data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved, the approval must specifically reference this AD.

Terminating Action

(c) For airplanes on which no missing rivet head is found during the inspection required by paragraph (a) of this AD: Within 2 years after the effective date of this AD, do an indirect conductivity eddy current inspection for discrepant rivets (incorrectly heat-treated) of the NWW panels between fuselage stations 260 and 340 of the canted pressure bulkhead per the Work Instructions of Boeing Alert Service Bulletin 747-53A2472, including Appendix A, excluding Evaluation Form, dated June 7, 2001.

(1) If any discrepant rivet is found, before further flight, replace with a permanent or time limited repair fastener per the Work Instructions of the service bulletin. Replace any time limited repair fasteners with permanent fasteners within 24 months after installation.

(2) If no discrepant rivet is found, no further action is required by this AD.

Alternative Methods of Compliance

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(f) Unless otherwise provided in this AD, the actions shall be done in accordance with Boeing Alert Service Bulletin 747-53A2472, including Appendix A, excluding Evaluation Form, dated June 7, 2001. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC.

Effective Date

(g) This amendment becomes effective on July 1, 2003.

Issued in Renton, Washington, on May 16, 2003.

Vi L. Lipski,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03-12841 Filed 5-23-03; 8:45 am]

BILLING CODE 4910-13-P